REMARKS

Reconsideration of this application is respectfully requested.

Claims 17 and 27 are pending in the application, with claims 1 through 16 and 18 through 26 having been canceled, claim 17 having been amended by incorporating therein the feature of former claim 26, and new claim 27, which is former claim 23 re-written in independent form. Entry of these amendments is respectfully requested as it is believed they put the application in condition for allowance or in better condition for appeal.

Since claim 23 was only objected to because it was dependent upon a rejected base claim, it is submitted that new claim 27 is in condition for allowance.

Claims 20-22 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as their invention. Claims 20-22 have been canceled. Accordingly, this ground of rejection is moot.

Claims 21-22 have been rejected under 35 U.S.C. 102(e) as being anticipated by Matsuzaki et al. (U.S. Patent No. 6,333,179). Claims 21-22 have been canceled. Accordingly, this ground of rejection is also moot.

Claims 17, 19-20, and 24-26 have been rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsuzaki et al.

The arguments made for patentability of the present invention over Matsuzaki et al. that were presented in the response to the Office Action of October 25, 2002 are hereby reiterated and incorporated herein by reference.

Matsuzaki et al. disclose a method for predetermining ratios of primer pairs present in a single reaction vessel so as to achieve an approximately equimolar yield of products. The ratios are determined as a function of the length of the amplicon and the length of other amplicons being simultaneously tested. It is further disclosed that the primers may desirably be for p53 gene sequences.

The present invention is characterized in that the reaction efficiency of the PCR reaction of the first module and the reaction efficiency of the PCR reaction of the second molecule are substantially the same because the melting temperature of both the first module and the second module are substantially the same and the lengths of the first primer and the second primer are the same. Accordingly, plural DNA samples are placed in one reaction tube for PCR, whereby the variation of each PCR can be eliminated. See page 5 of the application at lines 19-21.

Matsuzaki et al. show a p53 primer set used for a multiplex PCR amplification according to the experimental conditions set forth in Table 3 (see column 4, lines 38-40, and Tables 1 and 3). The lengths of these primers are different. For example, the shortest primer (SEQ ID NO:4) is 26 bases, while the longest primer (SEQ ID NO:18) is 31 bases. These structures are different from the primers of the present invention wherein the lengths of the first primer and the second primer are the same. Furthermore, although Matsuzaki et al. describe that, preferably, primers having both comparable base composition and comparable melting temperature are used, their melting temperatures are assumed to be different owing to the difference of their length and base composition.

In the primers of the present invention, on the contrary, the modules are set to give substantially the same reaction efficiency of the PCR reaction because of having substantially the same melting temperatures and because the lengths of the first primer and the second primer are the same. Therefore, "substantially the same" means nearly identical with regard to the PCR efficiency and melting temperature of the primers of the present invention compared to the primers described by Matsuzaki et al. According to these characteristics, the primers of the present invention can be used with no difference in PCR reaction efficiency and no variation of PCR (see page 30, lines 15-18, of the present application).

Thus, it is requested that the rejection of claims 17, 19-20, and 24-26 under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsuzaki et al. be withdrawn.

In view of the foregoing, it is submitted that this application is now in condition for allowance and an early Office Action to that end is earnestly solicited.

Respectfully submitted,

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